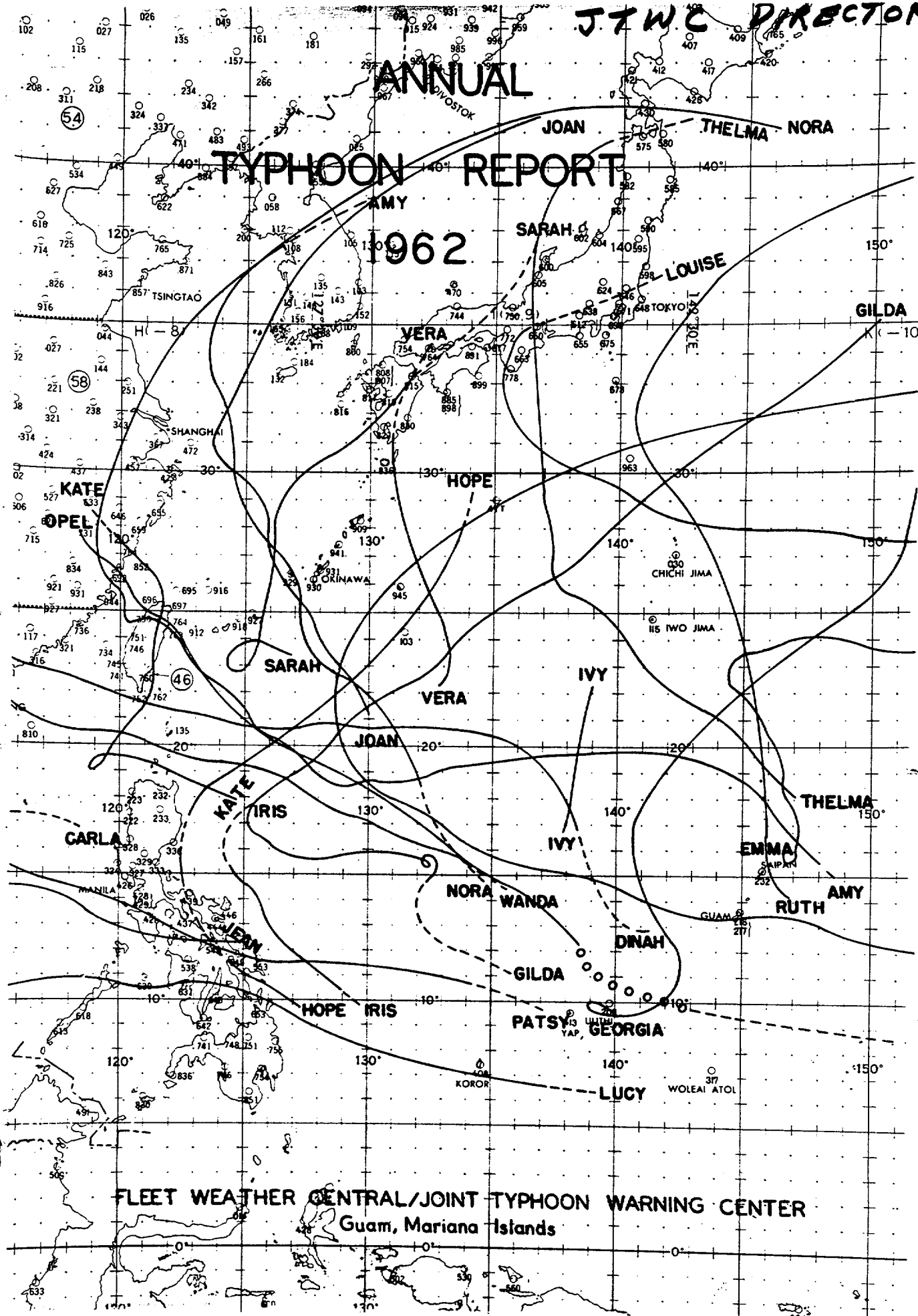


# ANNUAL TYPHOON REPORT 1962



FLEET WEATHER CENTRAL/JOINT TYPHOON WARNING CENTER  
Guam, Mariana Islands

U. S. FLEET WEATHER CENTRAL/  
JOINT TYPHOON WARNING CENTER  
COMNAVMARIANAS BOX 12  
SAN FRANCISCO, CALIFORNIA

WILLIAM J. KOTSCH  
Captain, U. S. Navy

COMMANDING

LEONARD H. HUTCHINSON  
Lieutenant Colonel, USAF

DIRECTOR, JOINT TYPHOON WARNING CENTER

STAFF

Capt William D. Roper, USAF  
Lt Harry D. Hamilton, USN  
Ltjg Elmer A. Erdei, USN  
Ens Thomas G. Fitzpatrick, USN  
SMSGT Donald N. Seay, USAF  
SSGT Kenneth P. Hartless, USAF  
SSGT Robert M. McGill, USAF  
AG2 William F. Goodner, USN  
AG3 William A. Marks, USN  
A2c Walter W. Pease, USAF  
AGAN Carroll D. Shoemaker, USN  
Mrs Gail Upton, Secretary

1962

ANNUAL TYPHOON REPORT



U. S. FLEET WEATHER CENTRAL/  
JOINT TYPHOON WARNING CENTER  
COMNAVMARIANAS BOX 12  
SAN FRANCISCO, CALIFORNIA

FWC/JTWC:WJK:gu  
3140  
Ser: 46  
28 January 1963

From: Commanding Officer, U. S. Fleet Weather Central/  
Joint Typhoon Warning Center, Guam, M. I.  
To: Chief of Naval Operations  
Via: Commander in Chief, U. S. Pacific Fleet  
  
Subj: Annual Typhoon Report, 1962; submission of  
  
Ref: (a) OPNAV INSTRUCTION 3140.17D

1. The Annual Typhoon Report, 1962 is submitted herewith in accordance with paragraph 4.a. of reference (a).
2. During calendar year 1962, a total of twenty-four destructive typhoons, six tropical storms, and nine tropical depressions threatened the Western Pacific area, necessitating the issuance of 815 individual warnings and the placement of the FWC/JTWC, Guam in "warning status" for 154 calendar days.
3. Despite an unusually active 1962, both politically and meteorologically, and even though the "eye" of Typhoon KAREN passed directly over Guam -- devastating the entire island the night of 11 November 1962 (including this command) -- the resourcefulness and indefatigability of my colleagues have made possible the compilation and publishing of this Report two months ahead of schedule.



WILLIAM J. KOTSCH  
CAPTAIN, U. S. NAVY

Copy to:

CNO (2)  
CINCPAC (2)  
CINCPACFLT (2)  
CINCLANTFLT  
COMNAVMARIANAS (2)  
COMNAVPHIL  
COMNAVFORJAPAN  
COMNAVFORKOREA  
COMWESTSEAFRON  
COMSEVENTHFLT (10)  
COMFIRSTFLT  
COMPHIBPAC (2)  
COMCRUDESPAC  
COMASWFORPAC  
COMINPAC  
COMSERVPAC (2)  
COMSTS (2)  
COMNAVAIRPAC (17)  
SUPT NAVPGSCOL (2)  
Chief, JUSMAG, Philippines (2)  
Chief, JUSMAG, Thailand (2)  
Chief, MAAG, Japan (2)  
Chief, MAAG, Taiwan (2)  
Chief, PMAAG, Korea (2)  
DIR NAVAL WEATHER SERVICE (27)  
CO FLEWEACEN PEARL  
CO FLEWEACEN ALAMEDA

OIC FLEWEAFAC SANGLEY PT (2)  
OIC FLEWEAFAC YOKOSUKA (2)  
OIC FLEWEAFAC MIAMI  
OIC FLEWEAFAC SAN DIEGO  
CO AEWRON ONE (10)  
CO AEWRON FOUR  
OIC NWRP NORFOLK  
NAVREP NWRC ASHEVILLE N.C.  
HEADQUARTERS, AWS (5)  
HEADQUARTERS, 1ST WW (40)  
AFHLO, JHWC, MIAMI  
AFPCHLO, BASE WEATHER  
STATION, HAMILTON AFB,  
CALIFORNIA  
HEADQUARTERS, 9TH WG (2)  
54TH WEATHER RECON SQDRON (10)  
55TH WEATHER RECON SQDRON  
56TH WEATHER RECON SQDRON (2)  
CHIEF, US WEA BUREAU (4)  
MIC, PSO, USWB HONOLULU (30)  
for additional distribution to:  
DIR, ROYAL OBSERVATORY, HK  
NAT GOV OF REP, CHINA  
REP OF KOREA  
JAPAN  
SEATO COUNTRIES  
AUSTRALIA

## FOREWORD

This report is published annually and summarizes Western and Central North Pacific typhoons. During 1962, no typhoons or tropical storms were reported in the Central North Pacific.

The Joint Meteorological Group, Pacific Command, through CINCPACFLT, as executive agent, redesignated Fleet Weather Central, Guam as Fleet Weather Central/Joint Typhoon Warning Center (FWC/JTWC), Guam, effective 1 May 1959, with the following additional responsibilities:

1. To provide warnings to U. S. Government agencies for all tropical cyclones west of 180 degrees longitude north of the equator to the Asiatic coast and Malayan Peninsula.
2. To determine tropical cyclone reconnaissance requirements and assign priorities.
3. To conduct investigative and post analysis programs including preparation of the Annual Typhoon Report.
4. To conduct tropical cyclone forecasting and detection research as practicable.

Fuchu Air Force Weather Central, assisted as necessary by Fleet Weather Facility, Yokosuka, was designated as alternate JTWC in case of failure of FWC/JTWC, Guam.

The JTWC, which is an integral section of FWC/JTWC, Guam, is staffed by three Air Force and three Navy meteorologists and three enlisted men from each service. The senior Air Force officer has been designated as the Director, JTWC.

The Joint Hurricane Warning Center in Hawaii, a coordinated agency composed of the U. S. Weather Bureau, Honolulu, the Air Force Kunia Weather Center, and Fleet Weather Central, Pearl Harbor, is responsible for surveillance and issuance of warnings in the Central North Pacific area

north of the equator between 180 degrees and west of 140 degrees west. There were two tropical depressions within this area in warning status in 1962.

# TABLE OF CONTENTS

|             |  |     |
|-------------|--|-----|
| Chapter I   | - Operational Procedures -----             | 1   |
| A.          | General -----                              | 3   |
| B.          | Analysis - FWC/JTWC -----                  | 3   |
| C.          | Forecast Aids -----                        | 4   |
| D.          | Warnings -----                             | 6   |
| Chapter II  | - Surveillance Systems -----               | 17  |
| A.          | General -----                              | 19  |
| B.          | Surveillance Methods -----                 | 19  |
| C.          | Evaluation of the 1962 Season -----        | 21  |
| D.          | Evaluation of Data -----                   | 23  |
|             | 1. Aerial Reconnaissance Data -----        | 23  |
|             | 2. Land Radar -----                        | 25  |
| E.          | Communications -----                       | 25  |
| Chapter III | - Summary of Tropical Cyclones of 1962 --- | 27  |
| A.          | General -----                              | 29  |
| B.          | Development -----                          | 36  |
| C.          | Steering -----                             | 43  |
| D.          | Dissipation -----                          | 45  |
| E.          | Damage -----                               | 45  |
| Chapter IV  | - Individual Typhoons of 1962 -----        | 59  |
| A.          | GEORGIA -----                              | 60  |
| B.          | HOPE -----                                 | 69  |
| C.          | IRIS -----                                 | 74  |
| D.          | JOAN -----                                 | 79  |
| E.          | KATE -----                                 | 84  |
| F.          | LOUISE -----                               | 92  |
| G.          | NORA -----                                 | 99  |
| H.          | OPEL -----                                 | 106 |
| I.          | PATSY -----                                | 111 |
| J.          | RUTH -----                                 | 116 |
| K.          | SARAH -----                                | 123 |
| L.          | THELMA -----                               | 132 |
| M.          | VERA -----                                 | 138 |
| N.          | WANDA -----                                | 143 |
| O.          | AMY -----                                  | 150 |

|            |   |     |
|------------|---|-----|
| P.         | CARLA -----   | 158 |
| Q.         | DINAH -----   | 163 |
| R.         | EMMA -----  | 170 |
| S.         | FREDA -----   | 178 |
| T.         | GILDA -----   | 183 |
| U.         | IVY -----   | 192 |
| V.         | JEAN -----  | 197 |
| W.         | KAREN -----   | 202 |
| X.         | LUCY -----  | 217 |
| Chapter V  | - Research -----  | 223 |
| A.         | General -----   | 225 |
| B.         | Annual Report -----   | 225 |
| C.         | Research -----  | 226 |
| D.         | Projects and Papers -----   | 227 |
|            | 1. Typhoon Forecasting -----  | 230 |
|            | 2. Evaluation of Statistical and Computer<br>Typhoon Forecasting Procedures ----- | 241 |
|            | 3. Typhoon Acceleration after Recurvature   | 268 |
|            | 4. Typhoon Eye Terminology -----  | 271 |
|            | 5. Investigation of Typhoon Surface Gusts   | 275 |
|            | 6. Typhoon Tracks, 1953-1962 -----  | 279 |
| Appendix A | - Abbreviations and Definitions -----   | 295 |
| Appendix B | - Bibliography -----  | 299 |
| Appendix C | - List of Illustrations, Charts and Data -  | 301 |